

**Claims:**

1. A process for the preparation of (1S,4R) 1-acetoxy-4-hydroxycyclopent-2-ene comprising the steps of:
  - 1) determining the water content of pancreatin;
  - 5 2) mixing pancreatin, *cis*-1,4-dihydroxycyclopent-2-ene, vinyl acetate, and triethylamine in tetrahydrofuran;
  - 3) adjusting the water content of the mixture such that the water is 5-7% by weight relative to pancreatin; and
  - 4) maintaining a reaction temperature of -40°C to +40°C, preferably -5°C to +10°C with stirring until the reaction is substantially complete.
- 10 2. A process according to claim 1 comprising the further steps of:
  - 5) concentrating the reaction mixture at 20-50°C bath temperature and 20-60mm pressure;
  - 15 6) dissolving the residue in methyl-*t*-butylether, optionally treating the mixture with activated charcoal and filtering the mixture;
  - 7) precipitating (1S,4R) 1-acetoxy-4-hydroxycyclopent-2-ene (Formula I) by the addition of a hydrocarbon solvent at 0-15°C.
- 20 3. A process for the preparation of (1S,4R) 1-acetoxy-4-hydroxycyclopent-2-ene comprising the steps of:
  - 1a) determining the water content of pancreatin;
  - 2a) adjusting the water content of the pancreatin such that the water is 5-7% by weight relative to pancreatin;
  - 25 3a) mixing pancreatin, *cis*-1,4-dihydroxycyclopent-2-ene, vinyl acetate, and triethylamine in a solvent; and
  - 4a) maintaining a reaction temperature of -40°C to +40°C, preferably -5°C to +10°C with stirring until the reaction is substantially complete.
- 30 4. A process according to claim 3 comprising the further steps of:
  - 5) concentrating the reaction mixture at 20-50°C bath temperature and 20-60mm pressure;

- 6) dissolving the residue in methyl-*t*-butylether, optionally treating the mixture with activated charcoal and filtering the mixture; and
- 7) precipitating (1S,4R) 1-acetoxy-4-hydroxycyclopent-2-ene (Formula I) by the addition of a hydrocarbon solvent at 0-15°C.

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5. A process according to claim 1 comprising the steps of:

- 1) determining the water content of pancreatin;
- 2) mixing pancreatin, *cis*-1,4-dihydroxycyclopent-2-ene, vinyl acetate, and triethylamine in tetrahydrofuran;
- 10 3) adjusting the water content of the mixture such that the water is 5-7% by weight relative to pancreatin; and
- 4) maintaining a reaction temperature of -40°C to +40°C, preferably -5°C to +10°C with stirring until the reaction is substantially complete.
- 5) concentrating the reaction mixture at 20-50°C bath temperature and
- 15 20-60mm pressure;
- 6) dissolving the residue in methyl-*t*-butylether, optionally treating the mixture with activated charcoal and filtering the mixture;
- 7) precipitating (1S,4R) 1-acetoxy-4-hydroxycyclopent-2-ene (Formula I) by the addition of a hydrocarbon solvent at 0-15°C.

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6. A process according to claim 3 comprising the steps of:

- 1a) determining the water content of pancreatin;
- 2a) adjusting the water content of the pancreatin such that the water is 5-7% by weight relative to pancreatin;
- 25 3a) mixing pancreatin, *cis*-1,4-dihydroxycyclopent-2-ene, vinyl acetate, and triethylamine in a solvent; and
- 4a) maintaining a reaction temperature of -40°C to +40°C, preferably -5°C to +10°C with stirring until the reaction is substantially complete.
- 5) concentrating the reaction mixture at 20-50°C bath temperature and
- 30 20-60mm pressure;
- 6) dissolving the residue in methyl-*t*-butylether, optionally treating the mixture with activated charcoal and filtering the mixture; and

7) precipitating (1S,4R) 1-acetoxy-4-hydroxycyclopent-2-ene (Formula I) by the addition of a hydrocarbon solvent at 0-15°C.